

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 120)

FOIL the expressions shown below:

1. $(-4x + 2)(-5x - 7)$

$$\begin{aligned} &(-4)(-5)x^2 + (-4)(-7)x + (2)(-5)x + (2)(-7) \\ &(20)x^2 + (28)x + (-10)x + (-14) \\ &20x^2 + 18x - 14 \end{aligned}$$

2. $(-8x - 9)(-9x + 8)$

$$\begin{aligned} &(-8)(-9)x^2 + (-8)(8)x + (-9)(-9)x + (-9)(8) \\ &(72)x^2 + (-64)x + (81)x + (-72) \\ &72x^2 + 17x - 72 \end{aligned}$$

3. $(-7x + 4)(5x - 9)$

$$\begin{aligned} &(-7)(5)x^2 + (-7)(-9)x + (4)(5)x + (4)(-9) \\ &(-35)x^2 + (63)x + (20)x + (-36) \\ &-35x^2 + 83x - 36 \end{aligned}$$

4. $(-6x + 6)(-7x - 3)$

$$\begin{aligned} &(-6)(-7)x^2 + (-6)(-3)x + (6)(-7)x + (6)(-3) \\ &(42)x^2 + (18)x + (-42)x + (-18) \\ &42x^2 - 24x - 18 \end{aligned}$$

5. $(-4x + 5)(5x - 8)$

$$\begin{aligned} &(-4)(5)x^2 + (-4)(-8)x + (5)(5)x + (5)(-8) \\ &(-20)x^2 + (32)x + (25)x + (-40) \\ &-20x^2 + 57x - 40 \end{aligned}$$

FOIL the expressions shown below:

6. $(4x + 4)(3x + 6)$

$$\begin{aligned}(4)(3)x^2 + (4)(6)x + (4)(3)x + (4)(6) \\ (12)x^2 + (24)x + (12)x + (24) \\ 12x^2 + 36x + 24\end{aligned}$$

7. $(9x - 9)(3x + 4)$

$$\begin{aligned}(9)(3)x^2 + (9)(4)x + (-9)(3)x + (-9)(4) \\ (27)x^2 + (36)x + (-27)x + (-36) \\ 27x^2 + 9x - 36\end{aligned}$$

8. $(4x - 3)(-5x + 7)$

$$\begin{aligned}(4)(-5)x^2 + (4)(7)x + (-3)(-5)x + (-3)(7) \\ (-20)x^2 + (28)x + (15)x + (-21) \\ -20x^2 + 43x - 21\end{aligned}$$

9. $(-3x + 8)(-4x - 9)$

$$\begin{aligned}(-3)(-4)x^2 + (-3)(-9)x + (8)(-4)x + (8)(-9) \\ (12)x^2 + (27)x + (-32)x + (-72) \\ 12x^2 - 5x - 72\end{aligned}$$

10. $(8x - 2)(5x + 7)$

$$\begin{aligned}(8)(5)x^2 + (8)(7)x + (-2)(5)x + (-2)(7) \\ (40)x^2 + (56)x + (-10)x + (-14) \\ 40x^2 + 46x - 14\end{aligned}$$